

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of : Customer Number: 46320
: Confirmation Number: 9630
Andrew HICKSON, et al. : Group Art Unit: 2151
: Examiner: J. Walsh
Application No.: 10/016,906 :
Filed: December 14, 2001 :
For: SELECTION OF COMMUNICATION PROTOCOL FOR MESSAGE TRANSFER
BASED ON QUALITY OF SERVICE REQUIREMENTS

REPLY BRIEF

Mail Stop Appeal Brief - Patents
Commissioner For Patents
P.O. Box 1450
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Sir:

This Reply Brief is submitted under 37 C.F.R. § 41.41 in response to the EXAMINER'S ANSWER dated June 12, 2007.

The Examiner's response to Appellants' arguments submitted in the Appeal Brief of January 30, 2007, raises additional issues and underscores the factual and legal shortcomings in the Examiner's rejection. In response, Appellants rely upon the arguments presented in the Appeal Brief of January 30, 2007, and the arguments set forth below.

On pages 6-8 of the Appeal Brief, Appellants presented extensive arguments with regard to the claimed term "message broker." Specifically, Appellants set forth a claim construction of the term and argued that the Examiner's conclusion that the term "message broker" refers to ones who "sends or receives messages" was not proper.

The Examiner's initial response to these arguments is found in the paragraph spanning pages 7 and 8 of the Examiner's Answer and reproduced below:

The Appellant argues, "Owens does not teach that the receiver 34 acts as an intermediary between two parties "(see Brief page 8, first paragraph). In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., acts as an intermediary between two parties) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181,26 USPQ2d 1057 (Fed. Cir. 1993).

At the outset, the Examiner appears to be confused as to the difference between claim construction and importing limitations from the specification into the claims.

In this regard, as a theme prevalent throughout the Examiner's analysis, Appellants note that the Examiner has failed to set forth a claim construction for many of the claimed limitations. Instead, the Examiner's analysis typically consists of the Examiner's "say so" as to how a claim should be interpreted without any factual analysis. Moreover, although the Examiner asserts that Appellants have imported limitations from the specification into the claims, the Examiner has failed to specifically identify the specific limitations Appellants are alleged to be importing from the specification and where these limitations are found in the specification.

With regard to the term "message broker," the Examiner further asserted the following in the first full paragraph on page 8 and in the paragraph spanning pages 8 and 9 of the Examiner Answer:

Furthermore, the argument appears drawn to the claim limitation of "message broker" (see Brief: page 7). The claims are given their broadest reasonable interpretation and the claims do not set forth any particular definition for the term "message broker". The Appellant argues the analysis and example of a stock broker and submits the broker as being "one who buys and sells" not one "who buys or sells". It is unclear if the Appellant is interpreting the term as being an "intermediary", which has not been claimed, regardless the receiver 34 of Owens performs both sending and receiving (see Owens: column 7, lines 49-50), which satisfies applicant's definition of the term "broker", which has not been claimed. The claim term defining structure has been interpreted in view of the functional language that has been associated with it as set forth in the claim, For example, claim 2 sets forth a "message broker" receiving a message ("receipt of a published message"). Therefore the prior art need disclose some element, labeled in the claim as a "message broker", to receive a published message. The receiver 34 of Owens performs this function (see Owens: column 7, line 39). (emphasis in original)

As apparent from the above comments, the Examiner disagrees that the term "broker" includes the concept that the broker is an intermediary. The Examiner, however, has not even taken the basic step of looking at the dictionary definition of the term "broker." A dictionary definition of the term broker is the following:¹

Etymology: Middle English, negotiator, from Anglo-French *brocour*

1 : one who acts as an intermediary: as a : an agent who arranges marriages b : an agent who negotiates contracts of purchase and sale (as of real estate, commodities, or securities)

As apparent from this definition and from the etymology of the term "broker," the concept that the broker is one that stands between two parties (i.e., as an intermediary or as a negotiator) is inherent within the term.

Although the Examiner asserts that the receiver 34 of Owens sends and receives messages, the Examiner has not established that one having ordinary skill in the art would recognize that the receiver 34 of Owens acts as a negotiator/broker/intermediary with regard to these messages for the same reason that a retail investor (who both buys and sells stock) would

¹ www.m-w.com/broker.

not be considered a stock broker or that a home owner (who sells his or her house and then buys another house) would not be considered a real estate broker. As would be recognized by one having ordinary skill in the art, the acts of buying and selling an item, alone, do not make one a broker.

The Examiner's final assertions with regard to the term "message broker" is found in the paragraph spanning pages 8 and 9 of the Examiner's Answer and reproduced below:

In view of Appellant's arguments the message broker (figure 1; 12,40,32; column 7, lines 31-41-receives message from sender and holds and forwards the message to the receiver; column 4, lines 61-66-can be a single entity) has been interpreted to more clearly be defined as the various devices and infrastructure (column 4, lines '44-50) that supports the users (message sender and message receiver; figure 1). Page 1 of Appellant's specification recites, "network of servers ("brokers"). The applicant has not recited the term servers in the claim to define the brokers. Furthermore elements 28 and 32 of Owens are servers. (emphasis added)

In short, the Examiner is defining the term "message broker" as "various devices and infrastructure ... that supports the users." Notably absent from the Examiner's "claim construction" is the both the concept of "messages" and the function of the broker (i.e., as an intermediary). Appellants, therefore, respectfully submit that the Examiner has failed to set forth a claim construction that reflects the ordinary and customary usage of the term "message broker" by one having ordinary skill in the art given the broadest reasonable interpretation of the term "message broker."

On pages 8-10 of the Appeal Brief, Appellants argued, in part, that the Examiner has not established that one having ordinary skill in the art would consider the filter and forward options taught by Owens as identically disclosing the claimed "quality of service requirements." In

response to Appellants' arguments, the Examiner presented the following assertions in the last full paragraph on page 9 of the Examiner's Answer:

The Appellant argues "The limitation at issue is "subscriber-specified quality of service requirements," which implies that the quality of service requirements' for a message are specified by the subscriber/receiver of the message" (see Brief page 9, last paragraph-page 10, first paragraph) and "to be considered a subscriber of messages one of ordinary skill in the art, one must be receiving the messages" (see Brief page 9, last paragraph). In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., are specified by the subscriber/receiver of the message; must be receiving messages) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). If the claim limitation "subscriber-specified" is to be interpreted as "specified by the user receiving messages", Owens does disclose this limitation at least at column 3, lines 20-35, wherein the receiver indicates a preferred communication medium and selects options and rules. Therefore they are "subscriber-specified" and they affect the quality of service that the user is receiving, thus giving them options to change or select the service they desire. (emphasis added)

Similar to the Examiner's assertion with regard to the term "message broker," the Examiner again confuses the concept of claim interpretation with reading limitations from the specification into the claims.

Referring to the underlined passage above, the Examiner's cited passage does not support the notion that Owens teaches "the receiver indicates a preferred communication medium." Instead, Owens teaches that a message may, for example, be sent to a voice mailbox or an e-mail mailbox. However, Owens is silent as to the specific communication medium (i.e., allegedly corresponding to the claimed "communication protocol") used to send these messages.

Appellants also note that although Owens teaches that the messages may have originated from different communication protocols (e.g., from a telephone or from a computer/modem), the communication protocols of how the message was received is not relevant to the claimed invention. The claim limitation at issue recites "selecting a communication protocol in accordance with the determined quality of service" and "transmitting the message using the

selected communication protocol." Thus, the communication protocol at issue is the communication protocol of how the messages are sent after the message has been received at the message broker.

On page 10 of the Examiner's Answer, the Examiner further asserted the following:

The Appellant has argued "the Examiner has not established that one of ordinary skill in the art would consider the filter and forward options taught by Owens as identically disclosing the claimed "quality of service requirements". (see Brief: page 10, 2nd paragraph), The claims are given their broadest reasonable interpretation and the Appellant has not established any particular definition within the claims for the term "quality of service requirements" that would render the filter and forward options and rules (abstract; column 3, lines 24-25) and choice of communication mode (column 7, lines 4-5). The user can establish these requirements and affect the quality of the service the user is receiving. Furthermore, the Appellant has not set forth that these particular "quality of service requirements" of Owen are not equivalent to Appellant's "quality of service requirements", and the claims do not set forth any particular limitation to further define this limitation.

The Examiner appears to be confused as to who has the burden of establishing a *prima facie* case of anticipation, which requires the identical disclosure, either explicitly or inherently, of each element of a claimed invention in a single reference. Since Owens does not use the term "quality of service requirements," the Examiner is burdened to explain why one having ordinary skill in the art, given the broadest reasonable interpretation of this phrase and based upon the ordinary and customary meaning of this phrase, would recognize that Owens identically disclose this particular feature.

The Examiner's "analysis" consists little more of asserting that "filter and forward options and rules" identically discloses this limitation without explaining why. The term "quality of service requirements," is a term of art that is frequently used in this art, yet the Examiner has not set forth any facts that supports the Examiner's conclusion that the Examiner's claim construction

is reasonable. Instead, as noted previously, the Examiner appears to be solely relying upon the Examiner's "say so" to support the Examiner's analysis.

On pages 11 and 12 of the Appeal Brief, Appellants argued that the Examiner failed to establish that Owens identically discloses the claimed "selecting a communication protocol in accordance with the determined quality of service." The Examiner's response to these arguments is found in the paragraph spanning pages 10 and 11 of the Examiner's Answer and is reproduced below:

The Appellant argues Owens does not disclose, "selecting a communication protocol in accordance with the determined quality of service" (see Brief: page 11). The communication protocols between the first and second message brokering systems are defined by the particular medium used, wherein each medium necessarily has a protocol associated with it and the communication protocol is dependent upon the selection of the communication mode. A protocol is a set of rules governing the format and transmission of data between computers. Since these computers are communicating there must necessarily be a particular protocol being used. When a particular communication mode is selected, which is associated with the "quality of service", therefore a protocol is being selected since the protocol is dependent upon the particular communication mode being used. See also Owens: column 6, line 10-13, 16; column 7, lines 40-42; column 8, lines 32-42; column 10, lines 65-67.

Despite the Examiner's assertions and citations, the Examiner has still failed to specifically identify where Owens teaches (i) a communication protocol is selected, and (ii) the selection of the communication protocol is based upon "the determined quality of service;" and (iii) the determined quality of service is based upon "characteristics of the received message and subscriber-specified quality of service requirements," as claimed.

Appellants do not doubt that a communication protocol between the computers of Owens is selected at some point. However, what the Examiner has failed to establish is that the communication protocol of Owens is selected based upon a "determined quality of service"

which is based upon "characteristics of the received message and subscriber-specified quality of service requirements," as claimed. Moreover, Appellants note that the claimed selecting and determining are performed "responsive to receipt of a published message at a broker," as claimed, and the Examiner has also failed to establish that Owens teaches this limitation.

With regard to the claimed "transmitting the message ..." step, the Examiner argued the following in the first full paragraph on page 11 of the Examiner's Answer:

The Appellant argues Owens does not disclose, "transmitting the message using the selected communication protocol" (see Brief: page 12, last paragraph). As addressed above Owens discloses the limitation of "selecting a communication protocol". The limitation of "transmitting the message" using the selected protocol is disclosed by Owens wherein Owens recites "*messages...delivered*" (column 9, lines 65-67) and "*in accordance with the preferences of both senders and receivers*" (column 9, line 67-column 10, line 1).

Despite the Examiner's assertion that Owens teaches that messages are delivered in accordance with the preference of both senders and receivers, the Examiner has still failed to establish that Owens teaches these preferences include a communication protocol.

Regarding claim 3, in the paragraph spanning pages 11 and 12 of the Examiner's Answer, the Examiner further asserted the following:

The Appellant argues Owens does not disclose "the subscribe-specified quality of service requirements include an indication of whether transactional message delivery is required, and wherein the protocol selecting step comprises selecting a non-transactional communications protocol for messages for which matching subscriptions do not include said transactional message delivery requirement" as recited in claim 2 (see Brief: page 13-page 14, 1st paragraph). The claims are given their broadest reasonable interpretation and although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. The examiner indicated Owens: column 10, lines 28-34, for addressing this particular limitation. In this passage Owens discloses message options for notifying the user immediately and having messages stored in a particular format for later retrieval. Columns 11 and 12 also expand upon the options (subscriber-specified) available. If the subscriber does not set forth a requirement for transactional delivery (which may include notifying immediately; mode such as a pager-column 12, line 13) then a non-transactional communication mode would be used (stored as email or voicemail).

Upon reviewing the Examiner's assertions, Appellants note that the Examiner has introduced new arguments and new citations (i.e., the Examiner's citation of columns 11 and 12). For ease of reference, the limitation at issue in independent claim 3 is reproduced below:

the subscriber-specified quality of service requirements include an indication of whether transactional message delivery is required, and wherein the protocol selecting step comprises selecting a non-transactional communications protocol for messages for which matching subscriptions do not include said transactional message delivery requirement.

Also, the Examiner's cited passage of column 10, lines 24-34 of Owens is reproduced below:

Inbound message options also allow a receiver (1) to be notified immediately of an inbound message and/or to redirect a message to an alternate device/address (i.e., perform an immediate action in response to the arrival of the message--immediate filter and forward options) or (2) to have messages stored in the original communication medium format or a second communication medium format for later retrieval (store and forward options.) Store and forward options provide the receiver with different ways, upon dialing in with a telephone or a computer, to retrieve and manage messages that have been stored.

In short, the above-reproduced claim language is directed to the concept that transactional message delivery is employed where a requirement for such is made in the subscriber-specified quality of service requirements, and upon a request not being made, then a non-transactional message communications protocol is selected. Although Owens teaches that the receiver can receive messages in "different ways," Owens fails to teach that a non-transactional message communications protocol is selected upon a matching subscription does not include a transactional message delivery requirement. Instead, Owens teaches that the receiver selects the communication medium without regard to whether a matching subscription does not include a transactional message delivery requirement (see column 10, lines 9-12 of Owens).

Upon reviewing the Examiner's newly cited passages of columns 11 and 12, Appellants have been unable to discover a teaching of a non-transactional message communication medium being selected based upon whether a matching subscription does not include a transactional message delivery requirement. As an aside, upon reviewing the Examiner's analysis, Appellants are unclear as to the specific limitation(s) in Owens alleged by the Examiner to identically disclose the claimed "non-transactional communication protocol" and an explanation as to why the Examiner believes these teachings identically disclose this limitation.

On pages 14 and 15 of the Appeal Brief, Appellants presented the following arguments. Referring specifically to claims 5, 18, and 20-21, the Examiner referred to column 10, lines 28-34 as identically disclosing the limitations found, respectively, in the last two paragraphs in each of independent claims 5, 18, and 20-21. In this regard, Appellants note that the limitations recited in the last two paragraphs in each of independent claims 5, 18, and 20-21 are not identical. However, the Examiner only included a single statement of analysis. Upon reviewing these claims, Appellants note that the Examiner has not identified all of the claim elements in these claims. Moreover, the Examiner has neither clearly designated the specific teachings in Owens being used by the Examiner nor linked these specifically identified teachings in Owens to specific claimed elements. Instead, the Examiner has broadly asserted that all of these limitations are identically disclosed column 10, lines 28-34 without explaining why. In this regard, the Examiner's rejection under 35 U.S.C. § 102 also fails to comply with 37 C.F.R. § 1.104(c).

The Examiner's response to this argument is found in the first full paragraph on page 13 of the Examiner's Answer and reproduced below:

The Appellant argues "the last two paragraphs in each of independent claims 5, 18 and 20-21 are not identical" and "the Examiner has not identified all of the claim elements". The claims have been given their broadest reasonable interpretation and as such the claims may not be identical, however Owens discloses the claimed subject matter, which has been identified by the Examiner. The Appellant has not indicated which particular claim limitations in claims 5, 18 and 20-21 are not identical or indicated which particular limitations or claim elements the examiner has not addressed.

Appellants are incredulous that the Examiner is unable to determine the differences between independent claims 5, 18, and 20-21. For ease of reference, Appellants have produced the following table that addresses each of the independent claims. For ease of reference, Appellants have deleted claim language that is shared by all four independent claims.

Claim 5	Claim 8	Claim 20	Claim 21
<u>for communication between first and second message brokering systems in a multi-broker network,</u>	the message broker determines said appropriate quality of service by determining which subset of subscribers are currently connected to the message brokering system and referring to the subscriber-specified quality of service requirements for only the currently connected subset of subscribers, and	the message broker determines said appropriate quality of service by determining which subset of subscribers are currently connected to the message brokering system and referring to the subscriber-specified quality of service requirements for only the currently connected subset of subscribers, and <u>for communication between first and second message brokering systems in a multi-broker network</u>	the message broker determines said appropriate quality of service by determining which subset of subscribers are currently connected to the message brokering system and referring to the subscriber-specified quality of service requirements for only the currently connected subset of subscribers, and <u>for communication between first and second message brokering systems in a multi-broker network</u>

<u>the first message brokering system is configured to access a repository storing subscriber-specified quality of service requirements for subscriber programs which connect to the broker network via the second message brokering system, and wherein the first message brokering system determines a quality of service for the communication by referring to the subscriber-specified quality of service requirements for the subscriber programs which connect to the broker network via the second message brokering system.</u>	the subscriber-specified quality of service requirements include an indication of whether transactional message delivery is required, and wherein the protocol selecting step comprises selecting a transactional communication protocol for messages which match subscriptions which include said transactional message delivery requirement, for only the currently connected subset of subscribers.	<u>the first message brokering system is configured to access a repository storing subscriber-specified quality of service requirements for subscriber programs which connect to the broker network via the second message brokering system and wherein the first message brokering system determines a quality of service for the communication by referring to the subscriber-specified quality of service requirements for the subscriber programs which connect to the broker network via the second message brokering system and by referring to connection status information for connections between the first and second brokering systems</u>	<u>the first message brokering system is configured to access a repository storing subscriber-specified quality of service requirements for subscriber programs which connect to the broker network via the second message brokering system and wherein the first message brokering system determines a quality of service for the communication by referring to the subscriber-specified quality of service requirements for the subscriber programs which connect to the broker network via the second message brokering system and by referring to connection status information for connections to said subscriber programs</u>
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Referring to claims 5 and 20-21, these claims share the underlined limitations. However, both the non-highlighted and bolded limitations shown in claims 20 and 21 do not have any analogous limitations in claim 5. Referring to page 4 of the Fourth Office Action and to pages 5 and 6 of the Examiner's Answer, the Examiner addressed only the limitations contained in claim 5. Thus, the Examiner has failed to establish that Owens identically discloses the non-highlighted and bolded limitations shown in the table above for claims 20 and 21. Regarding claim 18, all of the limitations shown in the table above do not have analogous limitations in claim 5. Thus, the Examiner has also failed to establish that Owens identically discloses the limitations shown in the table above as to claim 18.

On page 15 of the Appeal Brief, Appellants presented the following arguments. Referring specifically to claim 23, the Examiner merely cited column 10, lines 3-8. This passage, however, only refers to options for a sender and is completely silent with regard to the communication protocols between first and second message brokering systems, and how a communication protocol for use between the first and second message brokering systems is selected.

The Examiner's response to this argument is found in the first full paragraph on page 13 of the Examiner's Answer and reproduced below:

The communication protocols between the first and second message brokering systems are defined by the particular medium used, wherein each medium necessarily has a protocol associated with it. How a communication protocol for use between the first and second message brokering system is selected, is based upon the communication mode selected by, the sender and receiver and the communication protocol is dependent upon the selection of the communication mode. Column 10, lines 3-8 discuss the different communication modes available to the users. The Examiner has addressed these limitations and the Appellant has not given any evidence of why the particular features of Owens cannot anticipate the claim limitations.

For ease of reference, the Examiner's cited passage of column 10, lines 3-8 of Owens is reproduced below:

Preferably, a sender may select a mode by which a message may be sent--for example, a standard telephone for voice or fax mail or a computer/modem for e-mail. The options available to a sender depend in part on the communication mode and related services offered by the provider.

Absent from this cited passage, however, is a discussion of a first message brokering system and a second message brokering system. Since this passage does not describe first and second message brokering systems, Appellants are unclear how the Examiner can argue that a *prima facie* case of anticipation has been established. The Examiner's assertion as to how the

communication protocol is selected is not based upon fact, but instead, upon speculation. Appellants also note that the claims recite that the communication protocol is selected "in accordance with the determined quality of service," yet the Examiner's analysis neglects this limitation.

For the reasons set forth in the Appeal Brief of January 30, 2007, and for those set forth herein, Appellants respectfully solicit the Honorable Board to reverse the Examiner's rejection under 35 U.S.C. § 102.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 09-0461, and please credit any excess fees to such deposit account.

Date: August 13, 2007

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